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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

10/530,925

04/08/2005

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08/17/2006

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EXAMINER

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ART UNIT

PAPER NUMBER

2617

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 2617

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

DETAILED ACTION

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Applicant's admitted prior art** in view of **loka et al JP2002141994 (hereinafter loka)**.

Regarding **claim 1**, Applicant's admitted prior art discloses a mobile electronic apparatus (mobile telephone, see fig. 17, p.1, lines 15-17) comprising: a main body having a battery chamber (battery chamber, see fig. 17, p.1, lines 11-14) recessed generally in a rectangular shape in a lower portion of a back side of a casing, as opposed to a surface side having an operation unit and a display unit (see fig. 17, p.1, lines 11-14), a battery pack (battery pack, see fig. 17, p.1, lines 11-14) adapted to be removably contained in the battery chamber formed at a back face of the casing of the main body (battery chamber formed in the lower portion of the back of the body casing of the mobile telephone, see fig. 17, lines 11-14); and a collision avoiding unit including: generally sector-shaped ascent/descent portions (push-up projections 104, see fig. 17, p.2, lines 12-14) and suitably shaped push-up portions (push-up projections 104, see

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fig. 17, p.2, lines 12-14) which are disposed higher than and corresponding to a connecting terminal disposed in the battery chamber, on inner wall faces formed on the two sides along the loading direction of the battery pack so as to form the battery chamber (battery chamber 102, see fig. 17, p.1, lines 18-21) and near a corner portion intersecting an abutting wall face perpendicular to the inner wall faces for forming the battery chamber (battery chamber 102 with push-up projections 104, see fig. 17, p.1, lines 18-21, p.2, lines 4-11), and riding portions (riding projections 203, see fig. 17, p.2, lines 12-13) which are formed on a back face of the battery pack (body portion 201, see fig. 17, p.1, lines 24-25) confronting the ascent/descent portions and the push-up portions on the two widthwise sides of the battery pack (see fig. 17, p.2, lines 12-16) and ascending/descending while sliding on the sector-shaped faces of the push-up portions so as to ride over the connecting terminal disposed in the battery chamber (riding portions 203 engaging with push-up projections 104, see fig. 17, p.2, lines 8-11).

Applicant's admitted prior art fails to disclose a collision avoiding unit including: generally sector-shaped and concavely curved ascent/descent portions and suitably curved push-up portions which are disposed higher than and corresponding to a connecting terminal disposed in the battery chamber, and riding portions which are protruded generally in a sector shape and are formed on the back face of the battery back confronting the ascent/descent portions and the push-up portions on the two widthwise sides of the battery pack and ascending/descending while sliding on the sector-shaped faces of the push-up portions so as to ride over the connecting terminal disposed in the battery chamber.

In the same field of endeavor, Ioka discloses a collision avoiding unit including: generally sector-shaped and concavely curved ascent/descent portions and suitably curved push-up portions (convex portion 10, see fig. 3, abstract) which are disposed higher than and corresponding to a connecting terminal (power supply terminal 9, see figs. 1, 2 and 3, abstract) disposed in the battery chamber (attachment unit 32, see fig. 3, abstract), and riding portions which are protruded generally in a sector shape and are formed on the back face of the battery back confronting the ascent/descent portions and the push-up portions on the two widthwise sides of the battery pack (concave portion 7, see fig. 4, abstract) and ascending/descending while sliding on the sector-shaped faces of the push-up portions so as to ride over the connecting terminal disposed in the battery chamber (see abstract, figs. 1-4).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of JP2002141994A with the Applicant's admitted prior art for the benefit of improving the position accuracy of the battery pack in a mobile telephone.

Regarding **claim 3**, as applied to claim 1, the Applicant's admitted prior art further discloses wherein the mobile electronic device is a mobile telephone having a rod-shaped the main body side casing (mobile telephone, see fig. 17, p.1, lines 15-17), and wherein the collision avoiding unit is constructed that a plurality of the connecting terminals are arranged along the longer direction of the main body side casing (spring terminals 103 in the widthwise direction, see fig. 17, p.1, lines 18-23), and a plurality of the back electrodes are arranged on a back face of the battery pack so as to

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correspond to the connecting terminals for connecting to the connecting terminals of the battery chamber (back electrodes 202, see fig. 17, p.1, lines 24-25).

Applicant's admitted prior art fails to disclose wherein the collision avoiding unit is constructed that the ascent/descent portions disposed on the main body side casing of the mobile telephone are formed into generally concavely arcuate faces oriented toward the loading direction of the battery pack; wherein the collision avoiding unit is constructed that the riding portions of the battery pack are formed into generally convexly arcuate faces oriented in the direction to unload the battery pack.

In the same field of endeavor, Ioka discloses the main body side casing of the mobile telephone (portable telephone, see fig. 1, abstract) are formed into generally concavely arcuate faces oriented toward the loading direction of the battery pack (concave portion of the attachment unit, see figs. 5 and 6, abstract); wherein the collision avoiding unit is constructed that the riding portions of the battery pack are formed into generally convexly arcuate faces oriented in the direction to unload the battery pack (see abstract, figs. 6, 7, 8, 10, 11, and 12, abstract).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Applicant's admitted prior art using the teaching of Ioka for the benefit of attaching a battery pack to portable electronic apparatus such as a telephone.

Regarding **claim 5**, as applied to claim 1, the Applicant's admitted prior art further discloses wherein a plurality of the connecting terminals in the battery chamber are made of pin terminals protruded vertically upward from a floor face of the battery

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chamber (back electrodes 202, see fig. 17, p.1, lines 24-25), and are biased with an elastic force to freely move in a vertically upward direction (see fig. 17, p.1, lines 24-25 and p.2, lines 1-3).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Applicant's admitted prior art** in view of **Ioka et al JP2002141994 (hereinafter Ioka)** as applied to claim 1 above, and further in view of **Kobayashi 6,917,824**.

Regarding **claim 4**, as applied to claim 1, Applicant's admitted further discloses wherein the collision avoiding unit is constructed that a plurality of the connecting terminals are arranged along the longer direction of the main body side casing (spring terminals 103 in the, see fig. 17, p.1, lines 18-23), and a plurality of the back electrodes are arranged on a back face of the battery pack so as to correspond to the connecting terminals for connecting to the connecting terminals of the battery chamber (back electrodes 202, see fig. 17, p.1, lines 24-25).

Applicant's admitted prior art fails to disclose wherein the collision avoiding unit is constructed that the ascent/decent portions disposed on the main body side lower casing of the mobile phone are formed into generally convexly arcuate faces oriented toward the loading direction of the battery pack, and wherein the collision avoiding unit is constructed that the riding portions of the battery pack are formed into generally concavely arcuate faces oriented in the direction to unload the battery pack.

Ioka, however, further discloses wherein the collision avoiding unit (convex portion of main unit 3, see fig. 2, abstract) is constructed that the ascent/decent portions disposed on the main body side lower casing of the mobile phone are formed

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into generally convexly arcuate faces oriented toward the loading direction of the battery pack (see abstract, figs. 6, 7, 8, 10, 11, and 12, abstract), and wherein the collision avoiding unit is constructed that the riding portions of the battery pack are formed into generally concavely arcuate faces (concave portion of the attachment unit, see figs. 5 and 6, abstract) oriented in the direction to unload the battery pack (see abstract, figs. 6, 7, 8, 10, 11, and 12, abstract).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Applicant's admitted prior art using the teaching of Ioka for the benefit of attaching a battery pack to portable electronic apparatus such as a telephone.

The combination of Applicant's admitted prior art and Ioka fails to disclose wherein the mobile electronic apparatus is a folding type mobile telephone having main body side portions connected to each other through a hinge.

In the same field of endeavor, Kobayashi discloses wherein the mobile electronic apparatus is a folding type mobile telephone (folding telephone, see fig. 1, col. 6, lines 62-63) having main body side portions connected to each other through a hinge (hinge portion 13 coupled between first and second housings 11 and 12, see fig. 1, col. 6, lines 62-67 and col. 7, line 1).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kobayashi with the Applicant's admitted prior art and Ioka for the benefit of providing a folding telephone.

Allowable Subject Matter

5. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 1 and 3-5 have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

7. The information disclosure statement filed 5/8/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kaiho et al (6,515,450) discloses an internal battery holding structure in mobile equipment.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olumide T. Ajibade-Akonai whose telephone number is 571-272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER